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# Changes in Nebraska Manufacturing Employment, 1979-1987

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Considerable controversy has arisen in recent years over the relative importance of new business creation and expansion of existing businesses as policies for influencing state economic growth. Equally heated have been discussions about the relative importance of small versus large businesses in providing new employment opportunities. Data that may shed some light on these questions are available in a census of all Nebraska manufacturers conducted by the Nebraska Department of Economic Development (DED) in the fall of odd numbered years.

Although the data gathered in this census are used principally to produce the *Nebraska Directory of Manufacturers*, the data also allow tracking of manufacturing establishments over time. Employment changes of individual establishments are recorded, as are additions and exits of establishments in the manufacturing sector. Because the 1989 survey has not been conducted, this article reviews changes between 1979 and 1987. A summary of recent annual manufacturing employment changes as reported by the Nebraska Department of Labor also is included.

Several trends emerge from this review

* There are substantial gross employment changes that lie behind the net changes normally reported in the popular press;
* Existing manufacturers have led recent employment expansion;
* Of these existing establishments, the smallest have shown the steadiest growth as well as the largest percentage of growth over the period considered.

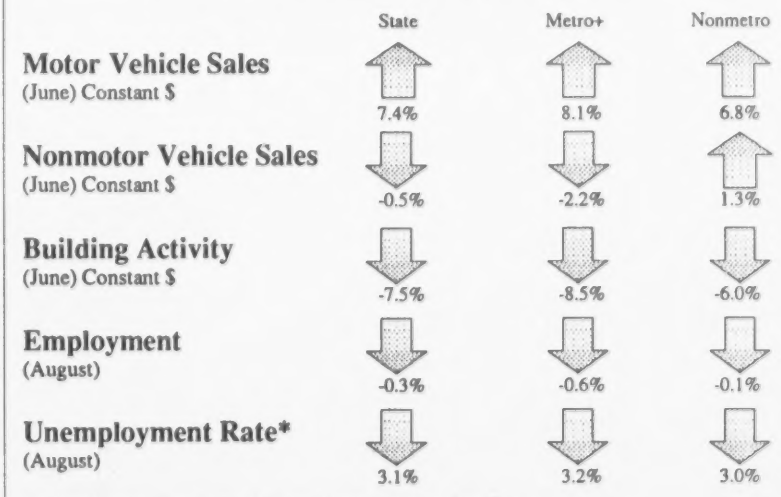
**Manufacturing Employment Trends in the 1980s**

The 1980s have been a roller coaster period for the Nebraska economy. The downturn in agriculture in the early part of the period coincided with a general decline in nonfarm business activity prompted by a nationwide recession. In contrast, the late 1980s witnessed general economic recovery for both Nebraska and the nation. Of considerable economic importance to Nebraska is manufacturing, which represents a major component of the state's economic base. During the 1980s, manufacturing has experienced both substantial employment declines and, more recently, significant gains.

A review of manufacturing employment as reported by the Nebraska Department of Labor for the period 1979 to 1988

## State Economic Scoreboard

Change from same month one year ago.
See Review and Outlook on page 9 for more details.




+Omaha and Lincoln. *Unemployment is this month's rate, not a percent change from year ago.

**Table 1**
**Composition of Manufacturing Employment Change by Four Year Periods, 1979-1983 and 1983-1987**

| | 1979-1983 | 1983-1987 |
|---|---|---|
| Beginning Employment | 110,500 * | 86,700 * |
| Losses Due to Contractions | -18,200 | -7,000 |
| Gains Due to Expansions | 8,300 | 18,500 |
| Losses Due to Closings | -19,200 | -13,700 |
| Gains Due to Startups | 5,300 | 9,400 |
| Ending Employment | 86,700 | 93,900 |

* Figures in this table are derived from a survey conducted during the fall of years shown. They represent employer estimates at the time of the survey and, therefore, should not be compared with the official estimates of employment issued by the Department of Labor.

Source: Nebraska Department of Economic Development, Division of Research

shows a decrease in the state's manufacturing annual average employment from a peak of over 99,000 in 1979 to a low under 85,000 in 1983. These average annual employment figures issued by the Nebraska Department of Labor should not be compared with the survey data analyzed in the remainder of this article.

Following a substantial employment gain in 1984, declines were experienced in 1985 and 1986. Since 1986, however, increases have been steady, with particularly impressive 1988 gains. The annual 6.9 percent increase for that year was the largest in 22 years, and the net creation of 6,100 new manufacturing jobs was the largest jump since 1943. The gains have continued into 1989, with employment for the first half of the year 5.1 percent above the same period in 1988.

**Gross Employment Changes Greater Than Net**

An initial striking observation from a review of the DED survey data is the extent to which net employment change figures mask a tremendous amount of positive and negative gross employment changes . Table 1 shows the composition of manufacturing employment change for the two periods 1979 to 1983 and 1983 to 1987 and indicates a net decrease in employment of about 24,000 between 1979 and 1983. This decrease is nearly catastrophic for a four year period and suggests that the recession of the period included a complete falling out across the sector. Yet the table also shows that there were 13,600 new jobs created in manufacturing during this period as a result of expansion of existing establishments and the startup of new operations in the state. Obviously, the losses due to contractions of existing manufacturers plus closings were far greater, totalling 37,400.

Likewise, during the 1983 to 1987 period, gross employment changes substantially exceeded the net figures. Actual employment increases were not 7,200, which is the difference between beginning employment and ending employment shown in Table 1, but totalled 27,900. This impressive gain was offset partially by total declines of 20,700.

Table 1 also shows that the employment expansion from 1983 to 1987 was led by existing industry. Employment gains due to the expansion of existing establishments were nearly double the increases from gains due to startups.

Table 2 provides an additional perspective. It shows the changes in the number of manufacturing establishments and associated employment changes for the full eight year period 1979 to 1987. A notable difference between 1979 and 1987 is the decline in the number of establishments from 1,922 in the beginning year to 1,702 in the ending year, a reduction of over 11 percent.

Another comparison of interest is the right column in Table 2. In 1987, manufacturing employment was increasing in Nebraska, but remained below the figure for 1979. Table 2 shows that employment changes from 1979 to 1987 occurring from expansions and contractions nearly offset one another. The table also shows, however, that the increase in employment from startups during the period was far less than the loss due to closings.

**Behavior of Small Versus Large Establishments**

Another controversy exists over the relative roles of small and large businesses in economic change. Table 3 contains establishment and employment summaries.

A striking statistic derived from Table 3 is that 78 percent of manufacturing establishments (those with less than 50 employees) employed less than 17 percent of all manufacturing employees in 1979. Two-thirds of the establishments (those employing less than 25) employed less than 10 percent of the total. On the opposite end of the spectrum, the largest establishments (500+ employees) represented only 2 percent of all establishments, but provided nearly 40 percent of total jobs.

In terms of net employment change of these existing establishments during the eight year period from 1979 to 1987, the smaller firms (less than 100 employees) increased employment, while the larger establishments experienced decreases.

**Table 2**
**Manufacturing Establishments by Change Component and Associated Employment Change, 1979-1987**

| Change Characteristic | Number of Establishments | Employment Change |
|---|---|---|
| Establishments in 1979 | 1,922 | — |
| Expansions | 538 | +13,100 |
| Contractions | 595 | -13,600 |
| Same Employment 1979/1987 | 147 | — |
| Closings | 641 | -31,600 |
| Startups | 421 | +15,500 |
| Establishments in 1987 | 1,702 | — |

Source: Nebraska Department of Economic Development, Division of Research

**Table 3**
**Manufacturing Employment Change by Establishment Employment Size: 1979-1987, 1979-1983, and 1983-1987**

| Employment Size Class | 1979 Establishments Number | 1979 Establishments Employment | Employment Change 1979-1987* | Employment Change 1979-1983* | Employment Change 1983-1987* |
|---|---|---|---|---|---|
| <25 | 1,270 | 10,870 | 1,373 | 523 | 1,173 |
| 25-49 | 225 | 7,555 | 268 | -508 | 1,217 |
| 50-99 | 201 | 13,762 | 969 | -182 | 2,100 |
| 100-499 | 184 | 36,675 | -513 | -4,389 | 1,817 |
| 500+ | 42 | 41,666 | -2,576 | -5,338 | 5,240 |
| Totals | 1,922 | 110,528 | -479 | -9,894 | 11,547 |

* Employment change figures represent the net of all positive and negative changes occurring only for establishments in existence during the first year in the heading.

During the four year economic downturn between 1979 and 1983, all but the smallest establishment classes lost employment. During the expansionary period from 1983 to 1987, all establishment size classes experienced net growth.

In percent terms, while the net employment change of all establishments over the eight year period was less than 0.5 percent, the net increase for establishments with less than 100 employees was 8.1 percent, and the increase for the smallest (less than 10 employees) category was 12.6 percent. Clearly, the state's smallest manufacturers play an important role in the stability and growth of the economy.

**Conclusions**

A review of manufacturing data for the years 1979, 1983, and 1987 yields the following conclusions:

* Economic activity is much more dynamic than revealed by the net figures normally used in economic reports. The gross employment change figures show four year gains and losses far greater than indicated by the net figures. A review of such figures annually would reveal even greater changes.
* The change in employment by existing companies is far greater than the changes occurring from establishments that are new to the state (either starts by entrepreneurs or relocation of plants.) This suggests that recent public policy encouraging the retention and expansion of existing industry is sound.
* A closer review of existing industry shows that the smaller 1979 manufacturing establishments experienced steadier and greater net employment growth than did the larger establishments.

*Substantial credit goes to Dale Mundy, of the Department of Economic Development Research staff, for computer work reflected in this article.*

# Direct Impacts of Irrigation Under Drought Conditions

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Droughts have occurred in Nebraska several times since the state was settled. The "dirty thirties" are remembered by some, the fifties by others, while the seventies and the past two years are vivid in the minds of many.

This article is the third in a series on the economic importance of irrigation in Nebraska. The first article, which appeared in the December 1988 issue of this publication, examined the importance of irrigation to the state's economy for 1985. The second article appeared in the August 1989 *Business in Nebraska* and focused on irrigation development in the state before 1940.

This article reports the results of a current research project at the Bureau of Business Research on the economic importance of irrigation under different simulated drought conditions. One of the conditions is referred to as a *moderate drought* that represents approximately twenty percent below normal annual precipitation. The second condition is labeled a *substantial drought* that represents approximately forty percent below normal annual precipitation. Decreases in

**Figure 1**
Nebraska Weather Bureau Regions and Crop Reporting Districts

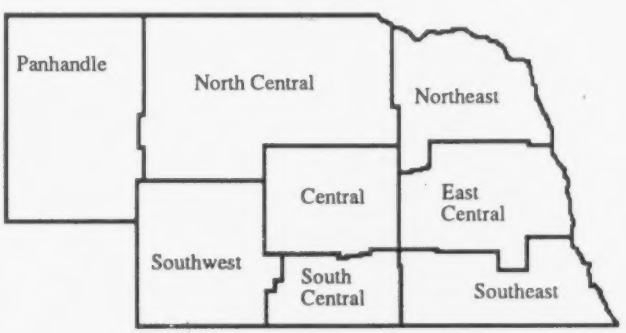

**Table 1**
Nebraska Normal Monthly Precipitation by Region
(Inches)

| Month | Panhandle | North Central | Northeast | Central | East Central | Southwest | South Central | Southeast |
|---|---|---|---|---|---|---|---|---|
| January | 0.38 | 0.41 | 0.52 | 0.45 | 0.65 | 0.2 | 0.44 | 0.73 |
| February | 0.41 | 0.64 | 0.85 | 0.68 | 0.95 | 0.4 | 0.68 | 0.98 |
| March | 0.92 | 1.12 | 1.64 | 1.44 | 1.83 | 1.0 | 1.48 | 2.04 |
| April | 1.75 | 2.18 | 2.46 | 2.39 | 2.78 | 1.7 | 2.11 | 2.76 |
| May | 3.08 | 3.34 | 3.89 | 3.64 | 4.06 | 3.20 | 3.65 | 4.01 |
| June | 3.08 | 3.64 | 4.18 | 3.86 | 4.27 | 3.31 | 4.09 | 4.38 |
| July | 2.35 | 3.01 | 3.19 | 3.15 | 3.25 | 2.94 | 3.19 | 3.81 |
| August | 1.65 | 2.43 | 3.14 | 2.74 | 3.64 | 2.10 | 2.92 | 3.93 |
| September | 1.28 | 1.81 | 2.36 | 2.19 | 3.05 | 1.65 | 2.44 | 3.54 |
| October | 0.82 | 1.09 | 1.54 | 1.27 | 1.92 | 0.97 | 1.34 | 2.18 |
| November | 0.49 | 0.65 | 0.86 | 0.70 | 1.08 | 0.58 | 0.79 | 1.25 |
| December | 0.40 | 0.50 | 0.68 | 0.57 | 0.76 | 0.40 | 0.50 | 0.79 |
| Annual | 16.61 | 20.82 | 25.31 | 23.08 | 28.24 | 18.87 | 23.63 | 30.30 |

Note: Normals presented here are based on records for the 30 year period 1951-1980

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Divisional Normals and Standard Deviations of Temperature (F) and Precipitation (Inches) 1931-80 (1931-60, 1941-70, 1951-80)*

precipitation were simulated to occur randomly throughout the study year 1985. Both simulated drought conditions were viewed in the study as a single year event. Therefore, normal subsoil moisture was assumed at the beginning of the crop-growing season.

Normal precipitation and deviations from normal were calculated on the basis of climatic precipitation data for the 30 year period from 1951 through 1980. The precipitation data for this 30 year period exhibit definite geographic patterns in Nebraska (Table 1). Average annual precipitation ranges from about 16.6 inches in the Panhandle to about 30.3 inches in the Southeast. Most of the precipitation occurs as rainfall during the crop-growing season from April through September. The wettest month for all crop reporting districts (CRDs) is June, except in the Panhandle where May and June tie for the wettest month. Figure 1 identifies Nebraska's eight CRDs. During the winter months, some of the precipitation appears as snow and/or ice.

To understand the impact of weather on crop yields and the economic importance of irrigation on the state's economy, several drought simulations were conducted. These simulations are the moderate drought condition and the substantial drought condition discussed earlier. These drought conditions were imposed on the state's irrigated land base of corn (for grain), grain sorghum, soybeans, and wheat for 1985. In 1985, this irrigated land base totaled 6,012,000 acres (hereafter referred to as the study area). Nearly 84 percent (5,050,000 acres) of this study area was devoted to corn for grain production in 1985, indicating the importance of irrigation in Nebraska for the production of corn. The following crop acres also were irrigated in 1985: grain sorghum-217,000 acres; soybeans-640,000 acres; and wheat-105,000 acres.

The two drought conditions were imposed on the study area using two scenarios. First, each drought condition was imposed on the study area while additional irrigation water was applied to offset the precipitation deficit during the growing season. Second, each drought condition was imposed on the study area while the removal of all irrigation from the study area was simulated. Also included in this second scenario was the simulation of dryland production in the study area for normal weather conditions, which hypothetically converted the study area to dryland crop production. (The study area is irrigated cropland.) An examination of drought effects on yields, total crop outputs, and production expenses on the study area for the situations with and without irrigation provided a method for determining the net importance of irrigation during periods of drought conditions.

Because the study area included land from all of Nebraska's eight CRDs, variations in soil conditions, weather conditions, etc. across the CRDs had to be taken into consideration for the estimation of crop yields. This was accomplished through the use of a computer model developed by U.S. Department of Agriculture specialists in Texas called the Erosion Productivity Impact Calculator (EPIC) model.

Two representative farming areas in each CRD were chosen for the study. Nearby weather stations were identified to provide the weather information needed by the model. The locations were chosen to reflect variations within the CRD.

Agriculturally important soils that are associated with the locations chosen for the weather stations in each CRD were selected by the Soil Conservation Service of the U.S. Department of Agriculture. These selections insured that soils and climates matched for the simulation runs.

Planting and harvest dates for the four study crops of corn for grain, grain sorghum, soybeans, and wheat were assigned using data reported by the National Agricultural Statistics Service (NASS) of the U.S. Department of Agriculture. Local tillage practices for each crop were identified from crop production budgets prepared for areas in Nebraska.

Weather data sets also were prepared to provide additional information about the economic effects of each drought simulation; that is, the effects of the moderate drought condition and the effects of the substantial drought condition.

CRD level information on soil conditions, planting dates, and harvest dates, etc. was input into the EPIC model to generate crop yield estimates for the study area that reflected the effects of a moderate drought and a substantial drought. These yield estimates are shown in Table 2. The study assumed that the irrigated crop yields would be maintained under the simulated dryland cropping conditions with the application of additional irrigation water. Table 2 also gives the estimated crop yields for the study area on the basis of no irrigation for normal weather (precipitation) conditions and the crop yield estimates for the two simulated drought conditions.

A comparison of columns one and two shows the net contribution of irrigation during normal weather conditions. This comparison (as all comparisons reported in this article) reflects 1985 conditions of technology. Irrigation's net direct contribution to corn yields for the study area was 42 bushels per acre (141.5 - 99.5 = 42.0). In total output terms, irrigation's total net contribution to corn production for the study area was 212,100,000 bushels (42 bushels/acre x 5,050,000 = 212,100,000 bushels). The value of this added production at a market price of $2.38 per bushel, based on 1985 market conditions, is slightly more than $500 million.

A comparison of the corn yield figure in column four with the corn yield figure in column one shows that irrigation would contribute, on a per acre basis, 92.5 bushels of corn above the 49.0 bushel amount that would have been grown during a substantial drought condition. For a substantial drought condition, irrigation almost triples corn production. Irrigation's net contribution of 92.5 bushels per acre for the substantial drought scenario totals, in value terms, over $1.1 billion for the 5,050,000 acres of corn in the study area. Accumulated values for the four crops with moderate and substantial drought scenarios total about $0.9 billion and $1.2 billion respectively (Table 3).

Several comparisons using data from Tables 2 and 3 can be made between irrigated crops and the simulated dryland equivalents, such as dryland production under a moderate drought condition. These comparisons show the direct impact or net direct contribution that irrigation makes to the state's total crop output.

Irrigation's direct contributions to the state's economy generates additional economic activity in the state. This additional activity, called the indirect impact, also was examined in the study. The indirect impact of irrigation will be reported in the next issue of *Business in Nebraska*.

**Table 2**
Crop Yields for Irrigated Crops, Nonirrigated Crops, and Two Scenarios of Drought Conditions (Bushels per Acre)

| Crop | Irrigation (1) | Dryland (Normal Weather) (2) | Dryland (Moderate Drought) (3) | Dryland (Substantial Drought) (4) |
|---|---|---|---|---|
| Corn, Grain | 141.5 | 99.5 | 72.6 | 49.0 |
| Grain Sorghum | 95.0 | 78.1 | 61.6 | 45.5 |
| Soybeans | 40.0 | 34.5 | 26.2 | 18.9 |
| Wheat | 55.0 | 38.2 | 30.6 | 22.7 |

**Table 3**
Value of Crop Production and Changes in Value Under Various Conditions on 1985 Irrigated Land Base ($000s)

| Situation | Total Value of Production | Change in Value of Production |
|---|---|---|
| Irrigated | $ 1,891,122 | — |
| Dryland, Normal Weather | 1,354,859 | $536,263 |
| Moderate Drought | 994,962 | 896,160 |
| Substantial Drought | 677,952 | 1,213,170 |

## Mark Your Calendars

The second annual State of the State Conference sponsored by the Bureau of Business Research will be held in three locations in 1990:

Ogallala.....January 16
Holiday Inn

Lincoln.....January 23
Nebraska Center
for Continuing Education

Omaha.....February 1
Holiday Inn
I-80 at 72nd Street

Each conference will be tailored to the area--national and state economic forecasts for the new year will be part of each. At Ogallala, we will focus on agriculture and economic development in the western part of the state. In Omaha, we will look at metropolitan Nebraska and compare it to similar mid-American growth centers. In Lincoln, the focus will be statewide issues, such as economic development and agriculture. Meetings will feature speakers from the academic, government, and business communities.

## Agricultural Diversion

Diversification long has been discussed among agricultural producers and suppliers in this state. *Nebraska Crop Statistics, 1908* (published by the Bureau of Labor and Industrial Statistics) presented an unusual farming venture:

Frog Farming

In addition to the ordinary game birds of Nebraska, there is a steadily increasing crop of Great Western bullfrogs. They are as green as Irish turf, grow to a great size, and "fly high" as to market. Sloughs and ponds are being stocked by the State Fish Commission, and after a while frog saddles should be within reach of all. The hunter doesn't have to show a license before bringing a frog ashore - thus making these night warblers peculiarly the poor man's game, while at the same time frog legs remain the tidbit of the epicure. This industry is still in its infancy, but gives fine promise of satisfying growth.

Merlin W. Erickson

# Review and Outlook

**John S. Austin**

**National Outlook**

With the first three quarters of the year behind us, it's a good time to examine how the economy may fare the rest of the year. First, let's review briefly the first nine months of the year. In contrast to many forecasts made at the end of last year, 1989 has shown substantial growth. First quarter real GNP advanced a strong 3.7 percent, inflated by a rebound from the drought that plagued the economy in 1988. When the drought impact is deleted, the growth rate was a more moderate 1.5 percent.

The second quarter results were surprising. Most forecasters expected that the downturn in growth rates would begin in the second quarter. Although the so-called final GNP growth rate of 2.5 percent is less than the first quarter 3.7 percent figure, the advance in the second quarter was larger than the 1.5 percent increase without the drought impact.

Although the third quarter has ended, the first estimate of third quarter GNP will not be revealed until the end of this month. That first estimate will be a rough guess. Nevertheless, we can make some reasonable inferences about the third quarter numbers. Let us examine the major components of GNP, namely consumer expenditures, residential construction, nonresidential investments, government expenditures, and net exports.

The consumer sector represents two-thirds of GNP. Although consumer confidence has dipped recently, it remains relatively strong. Retail sales in August increased 0.7 percent, in contrast to the 0.5 percent rise in July. August car sales showed an increase of 2.6 percent. Automobile sales in the third quarter will be fairly strong. There has been a big push with large and well-publicized dealer incentives to sell end-of-the-year models. At the same time, there have been announcements of sizeable increases in the list prices of 1990 models. Consequently, many customers rushed to dealerships in the third quarter and bought 1989 models. It is likely that Detroit has moved sales from the fourth quarter to the third quarter by this maneuver. When automobile sales were deducted from the retail sales data, the August figure shows an increase of only 0.2 percent. Other durable retail sales were fairly good, but nondurable sales suffered. It is likely that those households buying new automobiles cut their purchases of nondurables. Automobile sales were strong in early and mid-September reports. The third quarter consumption sector as a whole will show substantial growth.

There is a mixed picture in the housing area, another major swing item in the economy. Housing starts peaked in January and decreased until May. June and July saw gains, while August housing starts fell 5.0 percent. Nevertheless, August housing start levels were still stronger than the housing start levels in May.

Nonresidential investment is advancing; however, the pattern of advance is peculiar. Constant dollar private nonresidential spending has been roughly flat, with some monthly sawtooth disturbances since the fourth quarter of 1987. A slight upturn started in May of this year and continued in June and July. Investment in equipment is advancing sharply. Despite the reluctance to create new plants, productive capacity is increasing. As a result, there is less pressure on prices, at least in the industrial sector. Nonresidential investment, at best, will make a small positive contribution to third quarter GNP.

Federal expenditures have been somewhat erratic. State and local government expenditures tend to follow a steady growth pattern.

The net exports of goods and services have shown some healthy gains in the first half of this year. Net exports add to GNP. We suspect that the gains will continue in the third quarter. The prospects in the net export area depend upon the value of the U.S. dollar. At this writing, the dollar has shown some strengthening, followed by a short-term collapse. Low values of the dollar will tend to increase exports and decrease imports, with an overall gain in net exports. There are some lags in the impact of changes in the exchange rates on the net export figures. It will take some time to sort the impact of recent increases in the dollar. For the third quarter, net exports will provide a small boost to the GNP figures.

To make reasonable estimates of the fourth quarter, projections of this year's trends and some speculation are in order.

**(continued on page 9)**

**Table I**
**National Indicators**

| | Annual | | Quarterly (SAAR) | | | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1988:III | 1988:IV | 1989:I | 1989:II |
| Real GNP (percent change) | 3.7 | 4.4 | 3.2 | 2.7 | 3.7 | 2.5 |
| Real Consumption (percent change) | 2.8 | 3.4 | 3.3 | 3.0 | 2.0 | 1.9 |
| Housing Starts (millions) | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.4 |
| Auto Sales (millions) | 10.3 | 10.6 | 10.4 | 10.5 | 9.8 | 10.3 |
| Interest Rate (90 day T-bill) | 5.8 | 6.7 | 7.0 | 7.7 | 8.5 | 8.4 |
| Unemployment Rate (percentage) | 6.2 | 5.5 | 5.5 | 5.3 | 5.2 | 5.3 |
| Industrial Production Index (1977=100) | 129.8 | 137.2 | 138.4 | 139.9 | 140.7 | 141.4 |
| Money Supply, M2 (percent change) | 6.6 | 5.1 | 3.8 | 3.6 | 1.9 | 1.3 |

Source: Bureau of Economic Analysis
NOTE: SAAR—Seasonally Adjusted at Annual Rates

# Business in Nebraska--A Readership Survey

The *Business in Nebraska* staff constantly is looking for ways to better serve the citizens of Nebraska. Your responses to the questionnaire below will help us determine what information *Business in Nebraska* readers use and need. Please detach this page, fold, and return it. No postage is necessary.

## Section I: Please indicate your agreement or disagreement with the following statements.

| | Strongly Agree | Agree | No Opinion | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. The articles are informative | 1 | 2 | 3 | 4 | 5 |
| 2. The graphs are difficult to read | 1 | 2 | 3 | 4 | 5 |
| 3. The writing style is appropriate for the reading audience | 1 | 2 | 3 | 4 | 5 |
| 4. The magazine does an inadequate job covering Nebraska news | 1 | 2 | 3 | 4 | 5 |
| 5. I would recommend *Business in Nebraska* to my friends | 1 | 2 | 3 | 4 | 5 |
| 6. The articles are not appealing to my reading needs | 1 | 2 | 3 | 4 | 5 |
| 7. *Business in Nebraska* accurately forecasts economic trends | 1 | 2 | 3 | 4 | 5 |
| 8. The magazine is too long | 1 | 2 | 3 | 4 | 5 |
| 9. The magazine is readable | 1 | 2 | 3 | 4 | 5 |
| 10. The magazine has excellent graphics that really catch my eye | 1 | 2 | 3 | 4 | 5 |
| 11. The magazine is too stuffy | 1 | 2 | 3 | 4 | 5 |
| 12. The layout and typesetting of the magazine are excellent | 1 | 2 | 3 | 4 | 5 |
| 13. I am most interested in the statistical data in the tables | 1 | 2 | 3 | 4 | 5 |
| 14. I am most interested in reading the magazine's articles | 1 | 2 | 3 | 4 | 5 |
| 15. Readers should be able to contribute articles | 1 | 2 | 3 | 4 | 5 |

## Section II: Please circle how frequently you read the following features.

| | Always Read | Usually Read | Seldom Read | Never Read |
|---|---|---|---|---|
| 1. County of the month | 1 | 2 | 3 | 4 |
| 2. Employment in Nebraska table | 1 | 2 | 3 | 4 |
| 3. Price indices table | 1 | 2 | 3 | 4 |
| 4. City business indicators table | 1 | 2 | 3 | 4 |
| 5. City business index chart | 1 | 2 | 3 | 4 |
| 6. Sales graph | 1 | 2 | 3 | 4 |
| 7. Sales map | 1 | 2 | 3 | 4 |
| 8. Retail sales table | 1 | 2 | 3 | 4 |
| 9. Scoreboard | 1 | 2 | 3 | 4 |
| 10. Review and outlook | 1 | 2 | 3 | 4 |

## Section III: Various topics have appeared in *BIN*. Please check the items you recall reading.

_____ The Nebraska Worker: A Profile In Employment Growth
_____ Chickpeas in Southwestern Nebraska: Crop Diversification as an Economic Development Tool
_____ Tax Planning; Make It Part of Your Business Plan, Personal Finance Plan, and Estate Plan
_____ The Importance of Irrigated Agriculture to Nebraska's Economy
_____ Nebraska Economic Projections for 1989
_____ A Model of New Nebraska Industry
_____ Nebraska Export Industries: An Examination of Those With Greatest Potential
_____ The National Debt and the Federal Deficit
_____ Nebraska's Exports of Agricultural Commodities
_____ A Leading Economic Index for Nebraska
_____ A Primer on Capital Budgeting
_____ A Comparison of Economic Growth in Nebraska and the Plains
_____ Early Developments in Nebraska Irrigation

Of the items you checked above, please indicate the two you were most interested in reading:

1. _____

2. _____

## Section IV: The statements below will help us classify your responses.

In what county do you live? _____

What is your occupation? _____

On the average, how often do you read *Business in Nebraska*? _____

## Section V: Other.

Please give us the names and addresses of any persons you know who would like to receive *Business in Nebraska.*

_____

_____

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_____

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What ideas do you have for improving future issues of *Business in Nebraska*? Please feel free to suggest topics, feature columns, areas for expanded coverage, or areas to delete.

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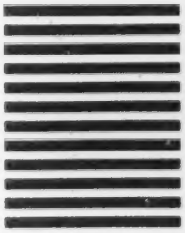

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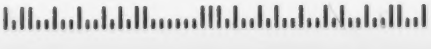
**Lincoln, NE 68501-9988**



**(continued from page 6)**

There likely will be some weakness in the consumer sector due to a drop in the consumption of automobiles in the fourth quarter. Higher list prices for 1990 models may induce some sticker shock. The major auto producers already have announced incentive programs for the new models. Weak fourth quarter auto sales imply that the consumer durable sector may show no expansion or even a small decrease from third quarter levels. Consumption of services and nondurables is less volatile and will show some increase. Federal government spending will continue to waffle in the fourth quarter. The investment sector outside housing is likely to show small advances, with continued gains in equipment purchases.

A key to forecasting the housing market is interest rates—one of the hardest economic variables to predict. It seems now that interest rates will be fairly stable for the balance of the year. Stability in interest rates is a real estate agent's dream. Variability in interest rates leads to uncertainty on the part of prospective home purchasers and may delay house buying plans. When relatively low and stable interest rates are coupled with growing levels of personal income, the outlook for housing brightens. The forecast stability of interest rates derives from the Federal Reserve's announcements that no further changes in policy are needed at this time.

Inflation gains should be moderate through the balance of this year, although wholesale oil prices have increased somewhat from low summer levels. It is likely that the Producer Price Index will show some gains in the fourth quarter. The Consumer Price Index probably will show increases in the 5 percent annual rate area. Neither of these reports should cause consternation at the Federal Reserve.

On the whole, we expect the fourth quarter will show positive gains, but at lower rates than in the first, second, and third quarters of this year. Thus, we expect real growth to be in the area of 1.5 to 2.0 percent in the fourth quarter. That estimate is in line with the latest consensus from the *Blue Chip Economic Indicators*. That forecast shows third quarter GNP advancing 1.7 percent, fourth quarter GNP increasing 1.4 percent, and a gain for 1989 as a whole of 2.8 percent. While those numbers are reasonable, I would speculate that the actual number will be a bit stronger when reported.

Unemployment in July and August stood at 5.2 percent. The Consumer Price Index in August was the same as the July level. The Consumer Price Index on a year-to-date basis now stands 4.8 percent above 1988 levels. The Producer Price Index continued a three month decline in August, decreasing 0.4 percent. Energy prices caused most of that deterioration, dropping 7.3 percent on a wholesale basis. When energy prices are deducted, the Producer Price Index shows an increase of 0.4 percent. In recent weeks energy prices have reversed their downward trend somewhat. It is likely that the next month's Producer Price Index will show an increase.

Industrial production advanced 0.3 percent in August, led by automobiles and coal mining equipment. Those special factors are unlikely to repeat next month. Other parts of the index slowed. Thus, there are some signs of future weakness in the industrial area. Future weakness also is indicated by a recent survey of the National Association of Purchasing Managers. Their index slipped in August to 45.2 percent versus 46.0 percent in July. Whenever their index is below 50.0 percent, it indicates that the industrial sector is slowing.

One other bad news item is that the relationship of business inventories and sales moved in the wrong direction in July. Thus, while business inventories advanced 0.6 percent, business sales decreased 0.9 percent. As a result, the ratio of inventory to sales rose from 1.51 to 1.54. That represents a continuation of a

**Table II**
**Employment in Nebraska**

| | Revised July 1989 | Preliminary August 1989 | August % Change vs. Year Ago |
|---|---|---|---|
| Place of Work | | | |
| Nonfarm | 709,249 | 710,736 | 3.4 |
| Manufacturing | 98,881 | 99,542 | 3.5 |
| Durables | 47,934 | 48,235 | 2.1 |
| Nondurables | 50,947 | 51,307 | 4.7 |
| Mining | 1,981 | 2,021 | 15.5 |
| Construction | 28,567 | 28,526 | 6.5 |
| TCU* | 47,717 | 47,952 | 5.7 |
| Trade | 184,030 | 184,547 | 3.2 |
| Wholesale | 53,171 | 52,868 | 4.6 |
| Retail | 130,859 | 131,679 | 2.6 |
| FIRE** | 49,412 | 49,354 | 2.4 |
| Services | 166,084 | 166,770 | 4.5 |
| Government | 132,577 | 132,024 | 0.8 |
| Place of Residence | | | |
| Civilian Labor Force | 824,684 | 825,016 | -0.92 |
| Unemployment Rate | 3.4% | 3.1% | |

*Transportation, Communication, and Utilities
**Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

**Table III**
**Price Indices**

| | August 1989 | % Change vs. Year Ago | YTD % Change vs. Year Ago |
|---|---|---|---|
| Consumer Price Index - U* (1982-84 = 100) | | | |
| All Items | 124.6 | 4.7 | 5.0 |
| Commodities | 116.7 | 4.3 | 5.0 |
| Services | 133.1 | 5.1 | 5.0 |
| Producer Price Index (1982 = 100) | | | |
| Finished Goods | 113.3 | 4.2 | 5.3 |
| Intermediate Materials | 112.1 | 3.4 | 5.5 |
| Crude Materials | 101.0 | 4.2 | 7.4 |
| Ag Prices Received (1977 = 100) | | | |
| Nebraska | 154 | 0.7 | 9.4 |
| Crops | 127 | -9.3 | 23.5 |
| Livestock | 172 | 6.8 | 3.6 |
| United States | 144 | 0.0 | 9.7 |
| Crops | 128 | -5.2 | 14.8 |
| Livestock | 160 | 5.3 | 6.2 |

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics

trend in the wrong direction. We hope that businesses will be able to move their inventories in line with sales fairly quickly. The ratio of inventory to sales is, and should be, a closely watched barometer of the health of the business environment.

**Nebraska Outlook**

Of immediate interest is whether Nebraska has shared in the national economic progress so far this year and whether Nebraska will share in the expected continuation of growth for the balance of this year. Although information on the Nebraska economy is not as current as information on the nation's economy, the data available indicate that our state has been part of the national progress. There are two broad indicators that give a relatively current view of Nebraska's economic health. These indicators are employment and retail sales.

Retail sales in the first half of this year increased 8.6 percent versus the first half of 1988. Nebraska auto sales outpaced national sales in the first half. Through June, Nebraska motor vehicle net taxable sales jumped 9.6 percent.

In the employment area, the labor force showed a decrease of 0.2 percent from a year ago in June. Labor force numbers had risen 0.8 percent in May from the previous year. The labor force data, a count of Nebraskans in the job market, contrast with the employment data collected on a job count basis, the so-called wage and salary job figures. In May, wage and salary jobs increased 3.8 percent, while the labor force showed a gain of 0.8 percent. How can these two sets of figures be reconciled? One factor is multiple job holders in the state, so-called moonlighters. If a Nebraskan holds two jobs, that person is counted once in the labor force data and twice in the jobs data. In addition, there are persons crossing borders to hold Nebraska jobs. An example of the phenomenon is the Iowa worker coming to Omaha or South Sioux City for a job. These persons would appear in a count of Nebraska wage and salary jobs, but they would not be counted in the Nebraska labor force numbers There are Nebraskans who hold jobs in other states as well. Personal income data show that there is more inflow of individuals into Nebraska for jobs than there is an outflow of Nebraskans to other states for jobs.

**Table IV**
**City Business Indicators**
**June 1989 Percent Change from Year Ago**

| The State and Its Trading Centers | Employment (1) | Building Activity (2) |
|---|---|---|
| NEBRASKA | -0.2 | -2.7 |
| Alliance | 0.5 | -34.6 |
| Beatrice | -0.4 | -36.0 |
| Bellevue | -0.8 | -23.7 |
| Blair | -0.8 | 133.4 |
| Broken Bow | 0.1 | -90.0 |
| Chadron | -0.4 | 752.6 |
| Columbus | 0.3 | 20.8 |
| Fairbury | -0.3 | -87.2 |
| Falls City | -0.5 | -48.0 |
| Fremont | -1.0 | -14.0 |
| Grand Island | -0.2 | -4.5 |
| Hastings | -0.2 | -12.2 |
| Holdrege | -0.2 | 1116.8 |
| Kearney | 0.1 | -50.4 |
| Lexington | 1.1 | 323.5 |
| Lincoln | 0.3 | -0.7 |
| McCook | -0.3 | -86.5 |
| Nebraska City | -0.1 | -43.7 |
| Norfolk | -0.7 | 22.4 |
| North Platte | 0.4 | -7.8 |
| Ogallala | -0.4 | -44.1 |
| Omaha | -0.8 | -3.2 |
| Scottsbluff/Gering | -1.5 | 90.9 |
| Seward | 0.4 | -26.8 |
| Sidney | 1.0 | -43.2 |
| South Sioux City | -1.2 | 170.8 |
| York | -0.4 | -21.8 |

(1)As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used

(2)Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes

Sources: Nebraska Department of Labor and reports from private and public agencies

**Figure I**
**City Business Index**
**June 1989 Percent Change from Year Ago**

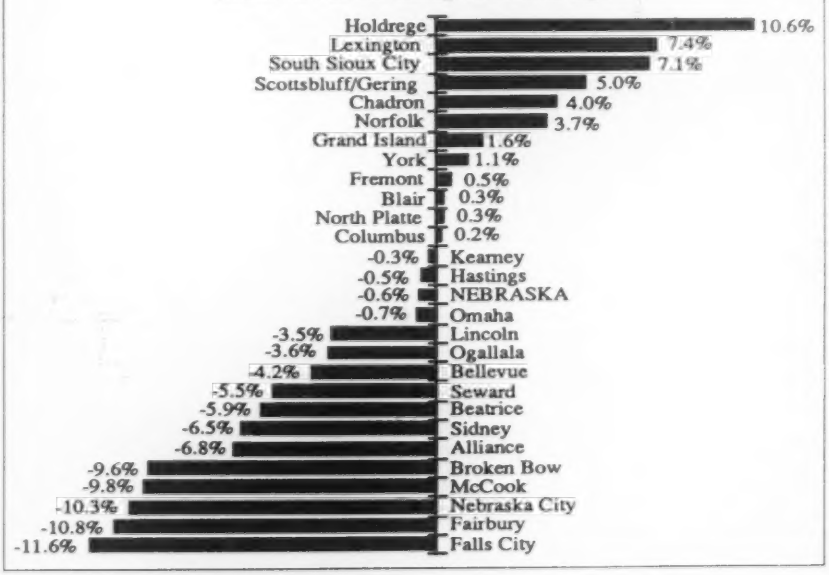
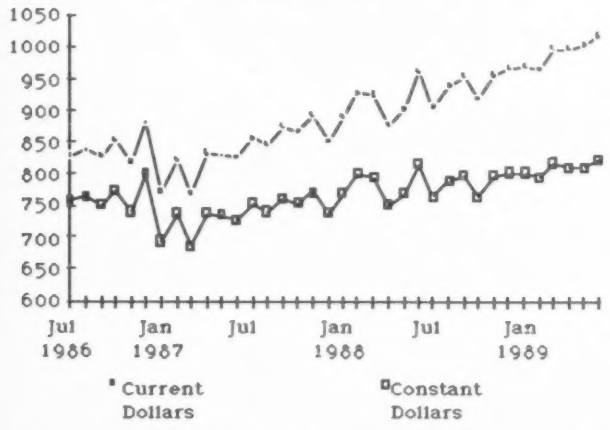


**Table V**
**Net Taxable Retail Sales of Nebraska Regions and Cities**

| Region Number and City (1) | City Sales (2) June 1989 (000s) | City Sales (2) % Change vs. Year Ago | Region Sales (2) June 1989 (000s) | Region Sales (2) % Change vs. Year Ago | YTD % Change vs. Year Ago |
|---|---|---|---|---|---|
| NEBRASKA | $899,014 | 4.7 | $1,045,077 | 5.7 | 8.6 |
| 1 Omaha | 309,508 | 5.0 | 391,142 | 5.7 | 9.7 |
| Bellevue | 12,447 | -0.6 | * | * | * |
| Blair | 4,303 | -2.6 | * | * | * |
| 2 Lincoln | 116,806 | -3.1 | 139,128 | -0.3 | 5.3 |
| 3 South Sioux City | 4,870 | 12.3 | 7,241 | 14.5 | 2.7 |
| 4 Nebraska City | 3,332 | -12.2 | 18,151 | -1.3 | 2.1 |
| 6 Fremont | 15,957 | 9.5 | 29,997 | 10.9 | 5.5 |
| West Point | 2,578 | 5.3 | * | * | * |
| 7 Falls City | 1,930 | -14.1 | 8,674 | -2.3 | -0.5 |
| 8 Seward | 3,877 | -4.3 | 14,767 | -0.1 | 3.2 |
| 9 York | 6,815 | 11.3 | 16,474 | 13.1 | 13.1 |
| 10 Columbus | 14,538 | 3.4 | 27,862 | 7.5 | 7.5 |
| 11 Norfolk | 19,002 | 12.7 | 34,875 | 8.8 | 9.3 |
| Wayne | 2,408 | -8.0 | * | * | * |
| 12 Grand Island | 34,409 | 10.2 | 50,232 | 12.7 | 11.2 |
| 13 Hastings | 15,649 | 6.2 | 27,238 | 9.6 | 8.6 |
| 14 Beatrice | 7,161 | -3.0 | 17,279 | -1.8 | 1.1 |
| Fairbury | 2,763 | 3.7 | * | * | * |
| 15 Kearney | 19,243 | 12.6 | 29,134 | 16.1 | 11.8 |
| 16 Lexington | 5,689 | 5.4 | 16,288 | 0.1 | 7.7 |
| 17 Holdrege | 4,422 | 2.2 | 8,811 | 7.4 | 7.5 |
| 18 North Platte | 16,639 | 6.7 | 21,426 | 7.8 | 4.5 |
| 19 Ogallala | 6,397 | 4.2 | 13,421 | 7.3 | 13.3 |
| 20 McCook | 7,501 | 5.5 | 11,174 | 5.3 | 4.9 |
| 21 Sidney | 3,651 | -4.4 | 7,691 | -6.6 | 3.6 |
| Kimball | 1,575 | -19.5 | * | * | * |
| 22 Scottsbluff/Gering | 18,057 | 11.6 | 26,211 | 11.1 | 12.3 |
| 23 Alliance | 4,910 | -6.3 | 14,343 | -3.9 | 2.9 |
| Chadron | 2,673 | -9.2 | * | * | * |
| 24 O'Neill | 4,623 | 14.3 | 15,980 | 9.7 | 12.1 |
| Valentine | 2,640 | -9.1 | * | * | * |
| 25 Hartington | 1,435 | 0.3 | 8,378 | -0.6 | 2.5 |
| 26 Broken Bow | 3,479 | 8.9 | 12,731 | 5.7 | 6.6 |

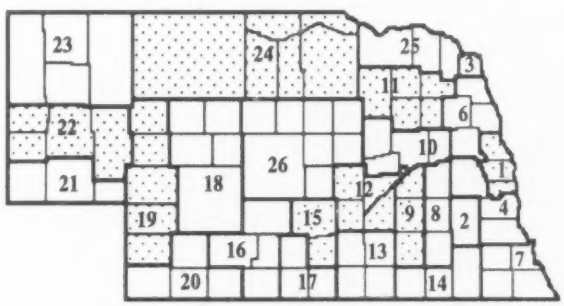
(1) See region map
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales
* Within an already designated region
Compiled from data provided by the Nebraska Department of Revenue

**Figure II**
**Nebraska Net Taxable Retail Sales**
**(Seasonally Adjusted, $ Millions)**




(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars

**Figure III**
**Region Sales Pattern**
**YTD as Percent Change from Year Ago**




Shaded areas are those with sales gains above the state average. See Table V for corresponding regions and cities

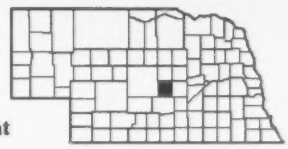
Whenever we look at the Nebraska economy, we need to look at the agricultural economy as well. Here, the data lags are immense. Furthermore, data often are revised. Therefore, we are forced to look at some evidence and do some reasoning about what has been happening this year In relative terms, 1988 was a good year for Nebraska farmers as a whole. The drought that affected production in other states resulted in high agricultural prices; however, overall Nebraska harvests in 1988 were near normal levels, although some areas in eastern Nebraska were below normal. There were also large agricultural payments in early 1988. As a result, the base year of 1988 showed reasonably healthy agricultural income figures compared to other agricultural states.

The question at hand is whether 1989 will match 1988 levels. Speculation is that farm income will fall about 10 percent in 1989. The winter wheat harvest decreased 13 percent from year ago levels. Despite some difficulty in the spring and early summer months with low moisture conditions, corn harvests are expected to be reasonably good. Unfortunately, we do not expect prices to be as high in this harvest season as they were in 1988 because U.S. production levels will be closer to normal.

In summary, the Nebraska economy has had a good first half. The second half may be somewhat slower due to the restraints in the agricultural area. The nonagricultural area should continue to advance. In the first half, Nebraska retail sales rose 8.6 percent over the first half of the previous year. Using a rough 5 percent inflation figure, that gives us a 3.6 percent real gain in retail sales. Second half retail sales may be up 6 percent to 7 percent, assuming again a 5 percent inflation factor. That cuts real Nebraska retail sales gains to 1 percent to 2 percent in real terms.

*County of the Month*

## Sherman



**Loup City--County Seat**

**Size of county:** 575 square miles, ranks 55th in the state
**Population:** 3900 (estimated) in 1988, a change of -8.6 percent from 1980
**Median age:** 36.6 years in Sherman County, 29.7 years in Nebraska in 1980
**Per capita personal income:** $12,299 in 1987, ranks 80th in the state
**Net taxable retail sales ($000):** $11,957 in 1988, a change of +16.8 percent from 1987; $5,839 during January-June 1989, a change of +2.8 percent from the same period one year ago
**Number of business and service establishments:** 92 in 1986; 75.0 percent had less than five employees
**Unemployment rate:** 5.2 percent in Sherman County, 3.6 percent in Nebraska for 1987
**Nonfarm employment (1988):**

| | State | Sherman County |
|---|---|---|
| Wage & salary workers | 688,146 | 807 |
| | (percent of total) | |
| Manufacturing | 13.8% | 3.3 |
| Construction and Mining | 3.8 | n.a |
| TCU | 6.5 | n.a |
| Retail Trade | 18.5 | 13.5 |
| Wholesale Trade | 7.3 | 11.4 |
| FIRE | 7.0 | 5.6 |
| Services | 23.0 | n.a |
| Government | 20.1 | 45.1 |
| Total | 100.0% | 100.0% |

**Agriculture:**
Number of farms: 576 in 1987, 539 in 1982
Average farm size: 555 acres in 1987
Market value of farm products sold: $30.2 million in 1987 ($52,440 average per farm)
Sources: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Nebraska Department of Labor, Nebraska Department of Revenue

Merlin W. Erickson

Business in Nebraska

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